



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

SEP 20 2000

Mr. Gerald Barnes
Deputy District Engineer
Corps of Engineers
1222 Spruce Street
St. Louis, MO 63103-2833

OFFICE OF
THE REGIONAL ADMINISTRATOR

Dear Mr. Barnes:

RE: Review of the Chesterfield Valley Flood Control Study and Integrated Draft Environmental Impact Statement in St. Louis County, Missouri

The Environmental Protection Agency has reviewed the Chesterfield Valley Flood Control Study and Integrated Draft Environmental Impact Statement (DEIS). Our review is provided pursuant to the National Environmental Policy Act (NEPA) 42 U.S.C. 4231, Council on Environmental Quality (CEQ) regulations 40 C.F.R. Parts 1500-1508, and Section 309 of the Clean Air Act (CAA). The DEIS was assigned the Council on Environmental Quality (CEQ) number 000268.

The DEIS endeavors to analyze the need for flood damage reduction protection for Chesterfield Valley, Missouri. Structural flood control methods are evaluated which may significantly raise the existing levee height in this floodplain valley. Based on our limited review (the DEIS was addressed to the incorrect Region 7 address, thereby reducing the amount of review days), and considering the level of detail that prompted each of our detailed comments (enclosed), we have assigned the DEIS a rating of EO-2 (Environmental Objections - Inadequate Information). A copy of EPA's rating system criteria is provided as an attachment to these comments.

EPA strongly encourages the Corps of Engineers to reevaluate the range of alternatives that are available to provide flood damage reduction which are in keeping with the intent of E.O. 11988 (Floodplain Management). I urge you to engage this Region's NEPA staff to discuss our objections and detailed comments for this DEIS.

Please send one copy of the Final EIS to this office at the same time it is officially filed with our Washington, D.C. office. If you have any questions, please contact Royce B. Kemp at (913)551-7551.

Sincerely,

[Signature]
Dennis Grams, P.E.
Regional Administrator

Enclosure(s) - 2

cc: Tom Lange, MDNR
Mark Wilson, USFWS

EPA's Comments on the Chesterfield Valley Flood Control Study and Integrated Draft Environmental Impact Statement in St. Louis County, Missouri

General DEIS Comments:

1. The Need portion (of the Purpose and Need) of the DEIS is deficient and unclear, providing no justification to increase the level of flood damage protection over the standard established by FEMA. Furthermore, the document does not contain analysis sufficient in detail to support Federal action in an increase in levee height above the 100-year level. A clearer need, which is presented in the narrative, would be to "bring the 100-year levee up to date to present federal standards."
2. The DEIS does not rigorously explore and objectively evaluate all reasonable alternatives. Reasonable alternatives that are not within the jurisdiction of the Corps are not included for analysis, and alternatives that are examined are not explained equally such that a reader may evaluate their comparative merits (40 CFR 1502.14).
3. The DEIS is flawed in that the document appears to *select* and rationalize the agency's preferred plan for implementation. The DEIS contains conclusions and other language that are normally found in a Record of Decision (ROD). In this same context, the DEIS rejects the No-Action alternative for consideration.
4. The document does not follow the NEPA format as recommended by 40 CFR 1502.10, furthermore, the Corps does not provide a compelling reason why the format is not followed. This deficiency causes the document to be extremely difficult to read, and to logically follow the issues and understand the consequences of the action being proposed.
5. This project would promote substantial development within the Missouri River Floodplain. Floodplain uses and values would be adversely affected by commercial and urban development that would promote increases in non-point source pollution, further wetland loss, and increased air pollution.
6. Cumulative effects of past, present and future incremental flood damage reduction projects are not adequately analyzed. "Flood control" cumulative actions promote commercial and urban development in the floodplain. The study does not provide adequate disclosure of the inherent risk involved in locating residences and businesses within the floodplain.
7. The net economic benefits, by which the recommended plan is selected, are not significantly greater than those for the existing levee. That is, the added flood damage reduction potential of the 500-year levee, considering average annual damage cost estimates and the associated benefit/cost ratio, when compared to the standard FEMA certified 100-year levee, is minimal and does not provide sufficient justification to increase the levee height above the federally recognized standard of 100-year flood protection. In fact, the benefit to cost ratio is highest for the 100-year levee plan. According to the *Principles and Guidelines for Water and Land Resources Implementation Studies* (1983), it is acceptable for the Corps to propose a plan other than the NED plan.
8. The estimated average annual damages appear to be artificially high for the 500-year levee raise because the economic analysis takes into account significant *anticipated* future

development. This type of logic makes the net economic benefit greater for each successive level of levee height raising (e.g., 100-, 200-, 500-year levels), while not taking into account (and equally and objectively comparing) the environmental values gained from restricting floodplain development.

9. This project would establish a precedent to increase other levees to the 500-year level with federal funding. No justifiable reason exists, nor is presented in the DEIS, to substantiate the need for this extreme and misleading level of flood damage reduction protection and the expenditure of federal funds to support it. Simply stated, the project proposal appears to be contrary to the intent of Executive Order 11988, Floodplain Management.

10. The project sponsor has elected on its own *desire* (not need) to initiate the construction of a 500-year levee, and has completed approximately 50% of that levee and plans to complete the remainder of the 500-year levee with or without the assistance of the federal government. Although offered as an alternative in the DEIS, there is clearly no intention of constructing a 100-year levee.

Detailed DEIS Comments:

1. Summary, page 6. The DEIS fails to disclose the project's Unresolved Issues as required by 40 CFR 1502.12.
2. Summary, page 11, Table 1. The section fails to explain the partial compliance (PC) with the Clean Water Act.
3. Main Report, page 20. This section describes specific planning steps used by the Corps in their planning process. However, the document does not appear to logically follow those steps, thereby creating a disconnect that makes it difficult to understand the actual planning process used for this project and to follow the issues throughout the document.
4. Main Report, page 23. EPA recommends that a map be included to supplement the description of the Floodplain Delineation.
5. Main Report, page 26. This section states that approximately 750 acres of farmland will remain agricultural land both in the future with/without project scenario. However, the DEIS provides no substantiation or reasoning for this statement.
6. Main Report, page 34. The amount stated for average annual inundation damages is not consistent with that of page 63, Table 8.
7. Main Report, page 37. This page seems to more fully capture the 'project need' in identifying that the Monarch-Chesterfield levee system lacks seepage controls, has an inadequate interior drainage system, and a costly maintenance program. EPA believes that non-levee raise alternatives exist that would best satisfy these needs for the project area, but have not been explored by the Corps.
8. Main Report, page 37. The Planning Objectives section fails to allow for any alternative other than a levee raise when other practicable alternatives may exist.

9. Main Report, page 39-40. This section eliminates reconnaissance measures from further consideration without adequately describing how the measure was cost prohibitive or otherwise insufficient to meet the projects' purpose, nor does it specifically explain why purchasing flood-prone structures would not be economically feasible for this project.

10. Main Report, page 57. Table 7 provides no quantifiable information for an informed decision making process, nor does it disclose effects that one could use in a rational, analytical evaluation of the alternatives.

11. Main Report, page 58. This section states that the induced flooding of the 500-year level flood cannot be accurately measured, yet elsewhere in the document there are specific, increased water stage trends (page 80).

Summary of EPA Rating Definitions

EPA's rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories that signify EPA's evaluation of the environmental impacts of the proposal and numerical categories that signify an evaluation of the adequacy of the EIS.

Environmental Impact of the Action

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude in that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Summary of EPA Rating Definitions *(continued)*

Adequacy of the Impact Statement

"Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.